**Amendments to the Claims**

Claims 2, 10, 13, and 17-19 are withdrawn from consideration. Please amend Claims 1 and 9. Please cancel Claim 20. Please add new Claims 21 and 22. The Claim Listing below will replace all prior versions of the claims in the application:

**Claim Listing**

1. (Currently Amended) A variable inductor, comprising:

a core element formed of a permeable magnetic material, the core element having three legs, including a center leg and two outer legs;

a main winding element comprising a main conductor wound around the center leg; and

a control winding element comprising a control conductor wound in a turn-by-turn figure-eight configuration having a first winding and a second winding around respective outer legs, the winding configuration canceling turn-by-turn induced voltages in the first and second windings, wherein a current through the control winding element causes a change in inductance of the main winding element.

2. (Withdrawn) The variable inductor of claim 1, wherein the core element comprises multiple cores, each core formed of a permeable magnetic material, each core magnetically coupled in series, each core having three legs, including a center leg and two outer legs.

3. (Original) The variable inductor of claim 1, further comprising an i-core formed of a permeable magnetic material, the i-core magnetically coupled across the center leg and two outer legs of the core element.

4. (Original) The variable inductor of claim 1, wherein the center leg of the core element has an air gap.

5. (Original) The variable inductor of claim 4, wherein a non-magnetic spacer is disposed in the air gap.

6. (Original) The variable inductor of claim 1, wherein the main conductor is Litz wire.

7. (Original) The variable inductor of claim 1, wherein the control conductor is Litz wire.

8. (Original) The variable inductor of claim 1, wherein the figure-eight configuration is an n-turn coil having a 180 degree twist.

9. (Currently Amended) A variable inductor, comprising:

a main core element formed of a permeable magnetic material, the main core element having three legs, including a center leg and two outer legs;

a control core element formed of a permeable magnetic material, the control core element having three legs, including a center leg and two outer legs; the legs of the main core opposing the legs of the control core to provide a magnetic coupling between the legs; a main winding element comprising a main conductor wound around the center leg of the main core; and

a control winding element comprising a control conductor wound in a turn-by-turn figure-eight configuration having a first winding and a second winding around respective outer legs of the control core, the winding configuration canceling turn-by-turn induced voltages in the first and second windings, wherein a current through the control winding element causes a change in inductance of the main winding element.

10. (Withdrawn) The variable inductor of claim 9, wherein the main core element comprises multiple main cores, each main core formed of a permeable magnetic material, each main core magnetically coupled in series, each main core having three legs, including a center leg and two outer legs; and wherein the control core element comprises multiple control cores, each control core formed of a permeable magnetic material, each control core magnetically coupled in series, each core control having three legs, including a center leg

and two outer legs, the legs of respective main cores opposing the legs of respective control cores to provide a magnetic coupling between the legs.

11. (Original) The variable inductor of claim 9, further comprising an i-core, the i-core formed of a permeable magnetic material, the i-core magnetically coupled between and across the legs of the main core element and the control core element.

12. (Original) The variable inductor of claim 11, further comprising a non-magnetic spacer coupled between the i-core and the main core element to provide an air gap.

13. (Withdrawn) The variable inductor of claim 9, wherein the center leg of the main core element is shorter in length than the outer legs of the main core element.

14. (Original) The variable inductor of claim 9, wherein the main conductor is Litz wire.

15. (Original) The variable inductor of claim 9, wherein the control conductor is Litz wire.

16. (Original) The variable inductor of claim 9, wherein the figure-eight configuration is an n-turn coil having a 180 degree twist.

17. (Withdrawn) A method of manufacturing a variable inductor, comprising:

winding a main winding element around a center leg of a core element formed of a permeable magnetic material, the core element having three legs, including the center leg and two outer legs, the main winding element comprising a main conductor; and

winding a control winding element in a figure-eight configuration, the control winding element having a first winding and a second winding around respective outer legs, the winding configuration canceling induced voltages in the first and second windings, wherein a current through the control winding element causes a change in inductance of the main winding element, the control winding element comprising a control conductor.

18. (Withdrawn) The method of claim 17, wherein the control winding element is wound on a first bobbin and a second bobbin, the first winding formed on the first bobbin and positioned over one outer leg of the control core and the second winding formed on the second bobbin and positioned over another outer leg of the control core.

19. (Withdrawn) The method of claim 17, wherein the figure-eight configuration is formed from an n-turn coil having a 180 degree twist.

20. Cancelled.

21. (New) The variable inductor of Claim 1, wherein the turn-by-turn cancellation of the induced voltages in the first and second windings allows the variable inductor to operate in a high magnetic flux region.

22. (New) The variable inductor of Claim 9, wherein the turn-by-turn cancellation of the induced voltages in the first and second windings allows the variable inductor to operate in a high magnetic flux region.